

## CLAIM OR CLAIMS

## WHAT IS CLAIMED IS:

5 1. A method of voice optimization in a packet switched network, comprising:

initializing default parameters for end-point devices on a network with respect to choice of preferred CODEC, number of voice samples per packet, and jitter buffer size;

10 measuring performance parameters of a network; and  
evaluating whether the measured performance parameters signify that a connection to the network is below a desired level of operation and, if so, adjusting the default parameters for the end-point devices based on the evaluating.

2. A method as in claim 1, wherein the adjusting includes performing functions that are selected from a group consisting of re-negotiating a CODEC connection, re-setting of parameters for the packet size and re-setting the jitter buffer.

3. A method as in claim 2, wherein the performance parameters being measured are selected from a group consisting of throughput, latency, packet loss, bandwidth, number of network hops to the end-point devices, round trip delay and any combination thereof.

4. A method as in claim 3, wherein the measuring is performed with at least one tool selected from a group consisting of a ping tool, a network trace tool and a packet loss measurement tool.

5. A method as in claim 1, wherein the performance parameters being measured are selected from a group consisting of throughput, latency and packet loss, bandwidth, number of network

hops to the end-point devices, round trip delay, and any combination thereof.

6. A method as in claim 5, wherein the measurements are obtained from measuring with at least one tool selected from a group consisting of a ping tool, a network trace tool and a packet loss measurement tool.

7. A method as in claim 1, wherein the adjusting is manually initiated by a user.

8. A method as in claim 2, wherein the adjusting is manually initiated by a user.

9. A method as in claim 1, further comprising registering the end-point devices with a private branch exchange (PBX) on the network, wherein said PBX measures performance parameters between the PBX and the end-point to determine the default parameters.

12. A method as in claim 1, further comprising: measuring and evaluating existing performance parameters with respect to quality of connection, the initializing being based on the evaluating.

13. A method as in claim 12, wherein the existing performance parameters being measured are selected from a group consisting of throughput, latency, packet loss, bandwidth, number of network hops to the end-point devices, round trip delay and any combination thereof.

14. A method as in claim 1, further comprising evaluating the measured performance parameters with respect to

quality of connection and making the indication as a result of the evaluating.

15. A method as in claim 1, wherein the adjusting is carried out during transmission of media to the voice over IP devices.

16. An apparatus to effect voice optimization in a packet switched network, comprising:

an initializer configured and arranged to initialize default parameters for end-point devices on a network with respect to choice of preferred CODEC, number of voice samples per packet, and jitter buffer size;

a measurer configured and arranged to measure performance parameters of a network;

an evaluator configured and arranged to make a determination as to whether the measured performance parameters signify that a connection to the network is below a desired level of operation; and

an adjuster configured and arranged to adjust the default parameters based upon the determination being that the measured performance parameters signify that the connection to the network is below the desired level of operation.

17. An apparatus as in claim 16, wherein the measurer includes software tools configured to measure the performance parameters, the performance parameters being selected from a group consisting of throughput, latency, packet loss, bandwidth, number of network hops to the end-point devices on the network, round trip delay and any combination thereof.

18. An apparatus as in claim 17, wherein the measurer includes software tools configured to measure the performance parameters, the software tools including at least one tool

selected from a group consisting of a ping tool, a network trace tool and a packet loss measurement tool.

19. An apparatus as in claim 16, wherein software tools include at least one tool selected from a group consisting of a ping tool, a network trace tool and a packet loss measurement tool.

20. An apparatus as in claim 16, wherein the adjuster is configured and arranged to perform functions which are selected from a group consisting of a re-negotiation of a CODEC connection and a re-set of the default parameters for the packet size and a re-set of the default parameters for jitter buffer size.

21. An apparatus as in claim 16, further comprising a private branch exchange on the network; a register configured to register the end-point devices with the private branch exchange (PBX) on the network; and a controller responsive to the register completing registration of the end-point devices with the PBX to direct the initializer to initialize the default parameters.

22. An apparatus to effect voice optimization in a packet switched network, comprising:

means for initializing default parameters for end-point devices on a network with respect to choice of preferred CODEC, number of voice samples per packet, and jitter buffer size;

means for measuring performance parameters of a network;

means for making a determination as to whether the measured performance parameters signify that a connection to the network is below a desired level of operation; and

means for adjusting the default parameters based upon the determination being that the measured performance parameters signify that the connection to the network is below the desired level of operation.

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23. An apparatus as in claim 22, wherein the measuring means includes software tools configured to measure the performance parameters, the performance parameters being selected from a group consisting of throughput, latency, packet loss, bandwidth, number of network hops to the end-point devices on the network, round trip delay and any combination thereof.

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24. An apparatus as in claim 22, wherein the measuring means includes software tools configured to measure the performance parameters, the software tools including at least one tool selected from a group consisting of a ping tool, a network trace tool and a packet loss measurement tool.

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25. An apparatus as in claim 22, wherein the adjusting means includes means for re-negotiating a CODEC connection, means for re-setting the default parameters for the packet size and means for re-setting the default parameters for the jitter buffer size.

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26. An apparatus as in claim 22, further comprising a private branch exchange on the network; means for registering the end-point devices with the private branch exchange (PBX) on the network; and means responsive to the registering means completing registration of the end-point devices with the PBX for directing the initializing means to initialize the default parameters.

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